

1                    TITLE OF THE INVENTION

2                    **Method and System for Ordering Sales Items**

3                    BACKGROUND OF THE INVENTION

4                    Field of the Invention

5                    The present invention relates to a method and system for ordering  
6                    system for placing an order for sales items via a communications network.  
7                    The present invention is particularly useful for purchasing items available  
8                    only in shops not connected to the network.

9                    Description of the Related Art

10                  Placing an electronic order for a sales item through a communications  
11                  network such as the Internet has met with success and gained a wide  
12                  acceptance. However, there are still many sales shops that are not connected  
13                  to the network. For ordering items that are only available in such non-  
14                  networked shops, the customer has the trouble of making a trip to a target  
15                  shop or continuing the trip for a search if the desired item is not available. In  
16                  addition, with the current ordering system the customer has to be content  
17                  with sales information supplied from the network to make a decision on  
18                  whether or not to place an order. As a result, a situation can occur where the  
19                  customer is not satisfied with a purchased item when it is different from what  
20                  the customer originally imagined. Further, if the sales information sent from  
21                  the network contains no desired item, the customer makes a trip around  
22                  shopping areas in search of the product. This is particularly disadvantages  
23                  for customers living in remote areas from shopping areas.

24                  SUMMARY OF THE INVENTION

25                  It is therefore an object of the present invention to provide a method

1 and system for ordering items through a communications network, wherein  
2 the items are only available in sales shops that are inaccessible via the  
3 communications network.

4 Another object of the present invention is to provide a method and  
5 system for ordering items which meet with customers' satisfaction.

6 According to a first aspect of the present invention, there is provided  
7 an ordering method comprising the steps of transmitting sales information,  
8 or catalogue from an agent server to a user terminal via a communications  
9 network. The sales information contains sales items that are only available in  
10 sales shops which are not accessible via the communications network. At the  
11 user terminal the transmitted sales information is displayed, allowing a user  
12 to select an item. A purchase order of the selected item is sent from the user  
13 terminal to the agent server for requesting a purchase of the selected item on  
14 behalf of the user. In response to the purchase order, the agent server  
15 transmits an acknowledgment message to the user terminal.

16 According to a second aspect, the present invention provides an  
17 ordering method comprising transmitting sales information from an agent  
18 server to a user terminal via a communications network. The user terminal  
19 displays the transmitted sales information allowing a user to select an item  
20 and transmits a request signal to the server for a service charge required for  
21 inspecting the selected item. The agent server determines the service charge  
22 depending on contents of the request signal and a cost database, and  
23 transmits the determined service charge to the user terminal. The user  
24 terminal displays the transmitted service charge to allow the user to make a  
25 decision as to whether an inspection of the selected item is performed and  
26 transmits a request signal to the server for indicating that the selected item be  
27 inspected when the user makes the decision. The agent server transmits an

1 inspection report of the item to the user terminal, which displays the  
2 transmitted inspection report to allow the user to make a decision as to  
3 whether the item is purchased and transmits a purchase order to the agent  
4 server for requesting a purchase of the selected item on behalf of the user  
5 when the user makes the decision. The agent server transmits an  
6 acknowledgment message to the user terminal in response to the purchase  
7 order.

8 According to a third aspect, the present invention provides an  
9 ordering method comprising transmitting sales information from an agent  
10 server to a user terminal via a communications network. At the user  
11 terminal, the transmitted sales information is displayed, allowing a user to  
12 select an item and a request signal is sent to the server for a service charge  
13 required for making a search for a desired item if the desired item is not  
14 found in the displayed information. The agent server determines the service  
15 charge depending on contents of the request signal and a cost database, and  
16 transmits the determined service charge to the user terminal. The user  
17 terminal displays the transmitted service charge to allow the user to make a  
18 decision as to whether the search is performed and transmitting a request  
19 signal to the server for indicating that the desired item be searched when the  
20 user makes the decision. In response, the agent prepares a search report of  
21 the selected item. The search reports is transmitted from the agent server to  
22 the user terminal, where it is displayed to allow the user to make a decision  
23 as to whether the item is purchased. When the user makes the decision, a  
24 purchase order is sent from the user terminal to the agent server for  
25 requesting a purchase of the item on behalf of the user. The agent server  
26 transmits an acknowledgment message to the user terminal in response to the  
27 purchase order.

1 According to a fourth aspect, the present invention provides an  
2 ordering method comprising the steps of (a) transmitting sales information  
3 from an agent server to a user terminal via a communications network, (b) at  
4 the user terminal, displaying the transmitted sales information to allow a user  
5 to select one of a plurality of decision branches, (c) transmitting to the agent  
6 server a purchase order if the user selects a first decision branch, a first  
7 request signal for requesting a first service charge required for inspecting a  
8 desired item contained in the displayed information if the user selects a  
9 second decision branch, and a second request signal for requesting a second  
10 service charge required for making a search of a desired item which is not  
11 contained in the displayed information if the user selects a third decision  
12 branch, (d) at the agent server, determining the first service charge if the first  
13 request signal is received depending on contents of the first request signal  
14 and a cost database, determining the second service charge if the second  
15 request signal is received depending on contents of the second request signal  
16 and a cost database, and transmitting the determined first or second service  
17 charge to the user terminal, (e) at the user terminal, displaying the  
18 transmitted service charge to allow the user to make a decision as to whether  
19 an inspection or a search of the desired item is performed and transmitting a  
20 request signal to the server for indicating that the desired item be inspected  
21 or searched when the user makes the decision, (f) at the agent server,  
22 transmitting an inspection report of the item or a search report of the item to  
23 the user terminal, depending on contents of the request signal of step (e), (g)  
24 at the user terminal, displaying the transmitted inspection report or search  
25 report to allow the user to make a decision as to whether the item is  
26 purchased and transmitting a purchase order to the agent server for  
27 requesting a purchase of the item on behalf of the user if the user makes the

1 decision, and (h) at the agent server, transmitting an acknowledgment  
2 message to the user terminal if the purchase order of step (c) or step (g) is  
3 received.

4 BRIEF DESCRIPTION OF THE DRAWINGS

5 The present invention will be described in detail further with reference  
6 to the following drawings, in which:

7 Fig. 1 is a block diagram of a communications network for receiving  
8 purchase orders for purchasing sales items on behalf of customers;

9 Fig. 2 is a flowchart of the operation of a user terminal of the present  
10 invention;

11 Fig. 3 is a flowchart of the operation of an agent server of the present  
12 invention;

13 Fig. 4 is an illustration of a window displayed on the user terminal  
14 when sales information is received from the agent server;

15 Fig. 5 is an illustration of a window displayed when a details button is  
16 clicked in the window of Fig. 4;

17 Fig. 6 is an illustration of a window displayed when a service menu  
18 button is clicked in the window of Fig. 5;

19 Fig. 7 is an illustration of a window displayed when the product  
20 inspection button is clicked in the window of Fig. 6;

21 Fig. 8 is an illustration of a window displayed when the user terminal  
22 receives a statement of service fee; and

23 Fig. 9 is an illustration of a window displayed when the product  
24 search button is clicked in the window of Fig. 6.

25 DETAILED DESCRIPTION

1 Referring to Fig. 1, there is shown an ordering system for assisting  
2 registered customers to facilitate purchasing sales items that are only  
3 available in shops not connected to the communications network. The  
4 system includes a plurality of user terminals 10 or desktop/notebook  
5 computers connected to a communications network 11 such as the Internet.  
6 Via the network 11, the user terminals 10 access an agent server 12 which  
7 provides assistance service to the user terminals 10 for placing a purchase  
8 order to sales shops 13 that are not connected to the network 11. When a  
9 sales item desired by a user is not available from the network but one of the  
10 sales shops 13, the user may wish to place an order to the agent server 12 for  
11 purchasing the desired item on behalf of the user.

12 Agent server 12 includes a number of databases 21, 22 and 23.  
13 Database 21 is a sales menu memory in which sales items available in the  
14 sales shops 13 are classified into a number of different categories and  
15 information describing details of each sales item is stored as a sales menu.  
16 Database 22 is a service menu memory in which information necessary for  
17 making a product inspection and a product search are stored as a service  
18 menu. Database 23 is a cost memory in which cost data such as travelling  
19 costs necessary for calculating service fees are stored. To the memories 21, 22,  
20 23 are connected a display unit 24 and a control unit 25 which reads  
21 information from one of the memories and transmits it to a user terminal  
22 through a link established by a line interface 20 in the communications  
23 network 11.

24 In Figs. 2 and 3, the operation of the system begins with a user  
25 terminal 10 accessing the agent server 12 through the network 11 and

1 opening the web-site home page of the agent server. User terminal 10 sends a  
2 packet to the agent server, containing a user identifier and a password (step  
3 A1, Fig. 2). In response to the packet from the user terminal, the agent server  
4 12 checks the password to verify the user identifier. If the user identifier is  
5 verified, the server reads data from the memories 21 and 22 and sends sales  
6 information containing a product menu (catalogue) and a service menu to the  
7 user terminal (step B1, Fig. 3). User terminal 10 stores the transmitted data  
8 and displays a list of product categories (step A2). When the user selects one  
9 of the product categories, a sales menu of the selected category is put on  
10 display (step A3).

11 As shown in Fig. 4, the sales menu is divided into a plurality of entries  
12 for respective sales items. Each product entry is divided into a plurality of  
13 fields for indicating a product code, the product name, a brief description of  
14 the product, the price, the name of a shop where the product is available, a  
15 railway station nearest to the shop, and a button for further information of  
16 the product. Product categories other than the selected one are also  
17 displayed in the menu to allow the user to select a further sales menu.

18 If the user wishes to buy one of the products indicated in the product  
19 entries, he clicks the "details button" of the corresponding product entry. In  
20 response, the user terminal displays details of the selected product (step A4).  
21 As shown in Fig. 5, the displayed details of the product include the product  
22 name, price, size, weight and suggested uses, and buttons for "service  
23 menu", "purchase order", "previous window" and "home page". The user is  
24 prompted to click one of these buttons. If the user is satisfied with the  
25 selected product and clicks the "purchase order" button (step A5), the user

1 (step A5), the user terminal sends a purchase order of the selected product to  
2 the agent server (step A16).

3 After sending the product and service menus to a user terminal, the  
4 agent server 12 is monitoring a signal from the user terminal, and when one  
5 is received, examines the information it contains (step B2). If the received  
6 signal is a purchase order, flow branches to step B3 to store the customer's  
7 name and acknowledges receipt of the purchase order by sending an  
8 acknowledge message to the user terminal. The agent personnel at the server  
9 makes a purchase of the ordered product from one of the sales shops 13 on  
10 behalf of the customer and dispatches the purchased item to the user  
11 terminal.

12 If the user is not satisfied with the information being displayed in the  
13 "product details", the "service menu" button may be clicked (step A5). In  
14 this case, the user terminal displays a window containing a "product  
15 inspection service" button and a "product search service" button as shown in  
16 Fig. 6 to allow the user to choose one of the two services (step A6).

17 The "product inspection service" button is used when the user  
18 requests the agent to make a trip in lieu of the user to the sales shop where  
19 the desired product is available and inspect it in detail in respect of the user'  
20 requested items and send an inspection report to the user. The product  
21 search service is one which will be selected if the user finds no satisfied  
22 product in the displayed information. In this case, the user requests the agent  
23 to conduct a search through a number of requested shopping areas for a  
24 desired product and send a search report to the user.

25 If the "product inspection service" button is clicked (step A7), flow



1 proceeds to step A8 to display a window illustrating a plurality of check  
2 items which the agent is requested to inspect the sales product.

3 As shown in Fig. 7, the check items of the product include "feel of  
4 touch", "weight", "reputation/ popularity", "robustness", "color",  
5 "fragrance", "enlarged photograph", "information of other shops", "similar  
6 products", and "others". Each of these check items may include a sub-menu  
7 for displaying a number of sub-items when the user clicks one of the check  
8 items for specifying further check items. The displayed window further  
9 displays an "end of selection" button and a "proceed to send" button. For  
10 example, the "enlarged photograph" item may include a sub-item indicating  
11 the number of such photographs taken at different angles. When a number of  
12 desired check items have been selected, the user clicks the "end of selection"  
13 button and then the "proceed to send" button. When the user clicks the  
14 "proceed to send" button (step A9), the user terminal formulates a request  
15 packet with the window data and sends it to the agent server for enquiry of a  
16 service fee of the product inspection (step A10).

17 In Fig. 3, when the agent server receives the request packet (step B2),  
18 the control unit 25 proceeds to step B4 to examine the check items requested  
19 by the user and calculate the service fee for the requested product inspection  
20 by using cost data stored in the cost memory 23. Control unit 25 prepares a  
21 statement of service fee, as shown in Fig. 8, and sends the statement to the  
22 user terminal and returns to step B2 to wait for the next signal from the user.

23 In Fig. 2, the user terminal receives the statement of service fee from  
24 the agent server and opens a window for displaying the contents of the  
25 received statement along with an Order button and a Stop button (step A11).

1        User terminal 10 proceeds to decision step A12 to determine which of  
2        the window buttons is clicked. If the user is not satisfied with the service fee,  
3        the Stop button is clicked and in response flow proceeds to the end of the  
4        routine. If the user is satisfied with the service fee, the Order button is clicked  
5        and the user terminal proceeds to step A13 and sends a product inspection  
6        order to the server 12. The product inspection order includes the user  
7        identifier, the product category, the product code, the check items and the  
8        service fee.

9        In Fig. 3, the agent server, which is monitoring the line interface 20 at  
10       step B2, receives the product inspection order from the user terminal and  
11       branches out to step B5. The agent server opens a window to display the  
12       received inspection order and assigns a unique application number to the  
13       requested product (step B6) and sends an acknowledgment message by an e-  
14       mail to the user terminal, containing the assigned application number (step  
15       B7).

16       Then, the personnel at the agent server 12 makes a trip to a sales shop  
17       where the requested product is available and manually inspects it in respect  
18       of the requested check items and requests the sales shop to reserve the  
19       product for possible purchase. The agent prepares an inspection report with  
20       photographs if requested. The agent may recalculate the service fee if  
21       necessary. Agent server 12 transmits the inspection report to the user  
22       terminal at step B8 with a bill for charging the amount of service fee which  
23       was calculated at step B4 or recalculated. Control unit 25, and returns to step  
24       B2 for monitoring the line interface 20 to detect a signal from the user  
25       terminal.

1           Returning to Fig. 2, the user terminal receives the inspection report at  
2 step A14 and displays it in a window to allow the user to click one of Order  
3 and Stop buttons. If the user is satisfied with the report of the product  
4 inspection service, the Order button is clicked (step A15) and a purchase  
5 order is sent to the agent server (step A16). The transmitted purchase order  
6 includes the user's identifier, the password, and the application number. If  
7 the Stop button is clicked, flow proceeds from step A15 to the end of the  
8 routine.

9           When the agent server 12 receives the transmitted purchase order, the  
10 control unit 25 proceeds from step B2 to step B3 to acknowledge the purchase  
11 order and purchase the ordered product from the sales shop and requests the  
12 sales shop to transport the sales item to the user's location along with a bill  
13 for charging the product price and the shipment or handling cost.

14           If no desired sales product is found in the sales menu, the user may  
15 wish to select the product search service by clicking the associated button in  
16 the window of Fig. 6 (step A7). In this case, flow proceeds to step A17 to  
17 open a window as shown in Fig. 9, in which the user is urged to enter  
18 information necessary for the agent to perform a search for the desired sales  
19 product. The displayed window shows a number of blank spaces in which  
20 the user is requested to enter the names of shopping areas, the product name,  
21 product category.

22           When the user has entered necessary information and clicks a "SEND"  
23 button in the displayed window (step A18), the user terminal formulates a  
24 request packet with the entered data and sends the request packet to the  
25 agent server for enquiry of a service fee of the product search (step A19).

1       When this request packet is received, the agent server proceeds from  
2   step B2 to step B9. Using the area information contained in the request  
3   packet and data stored in the cost memory 23, the agent server calculates the  
4   service fee. The personnel at the agent server makes a trip around all the  
5   shopping areas specified in the request packet in search of the target product  
6   and prepares a search report. Agent server 12 sends this search report to the  
7   user terminal and returns from step B9 to step B2.

8       When the user terminal receives the statement of service fee (step  
9   A20), it opens a window for displaying the contents of the received statement  
10   along with an Order button and a Stop button (step A20). Flow proceeds to  
11   decision step A21 to determine which of the window buttons is clicked. If the  
12   user is not satisfied with the service fee, the Stop button is clicked to  
13   terminate the routine. If the user is satisfied with the service fee, the Order  
14   button is clicked and flow proceeds to step A22, where the user terminal  
15   formulates a packet with the window data and sends it to the server 12 as a  
16   product search order.

17       In response to the product search order, the agent server proceeds to  
18   step B10 and opens a window to display the received search order and  
19   assigns a unique application number to the requested product (step B11) and  
20   sends an e-mail to the user terminal to acknowledge the receipt of the order,  
21   containing the assigned application number (step B12). The agent prepares a  
22   search report detailing the results of the product search and recalculates the  
23   service fee to reflect the actual cost of the search, if necessary. If the requested  
24   product is found, the search report includes photographs of the product, the  
25   sales shop where it is found, the nearest railway station to the shop, the

1 product price and the application number. At step B13, the agent server  
2 sends the search report to the user terminal with a bill for charging the  
3 service fee which was calculated at step B9 or recalculated, and returns to  
4 step B2.

5 At step A14, the user terminal receives the search report and opens a  
6 window to display its contents, allowing the user to click one of Order and  
7 Stop buttons. If the search report indicates that the requested product is not  
8 found in any of the specified shopping areas, the user clicks the Stop button  
9 to terminate the routine. If the user is satisfied with the search report, the  
10 Order button is clicked (step A15) and a purchase order is sent to the agent  
11 server (step A16). The transmitted purchase order includes the user's  
12 identifier, the password, and the application number.

13 When the agent server receives the transmitted purchase order, the  
14 control unit 25 proceeds from step B2 to step B3 to acknowledge the purchase  
15 order and purchase the ordered item from the sales shop and requests the  
16 sales shop to transport the sales item to the user's location along with a bill  
17 for charging the product price and the shipment or handling cost.